

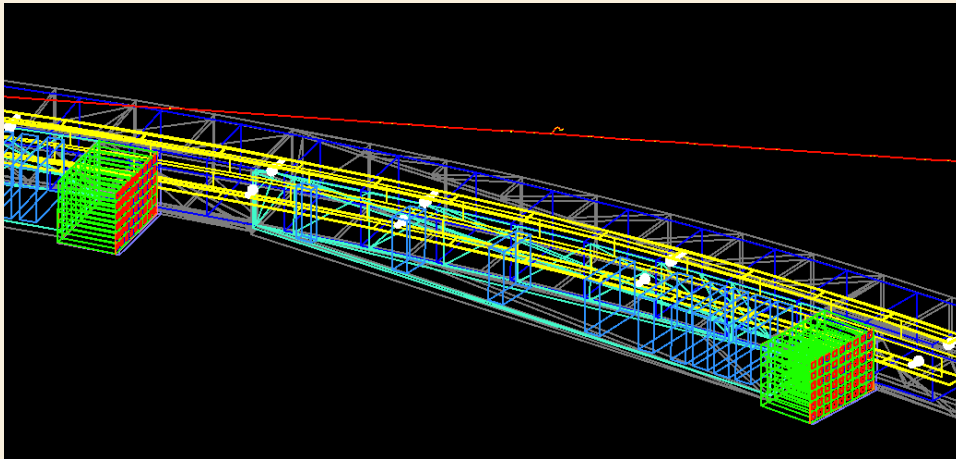
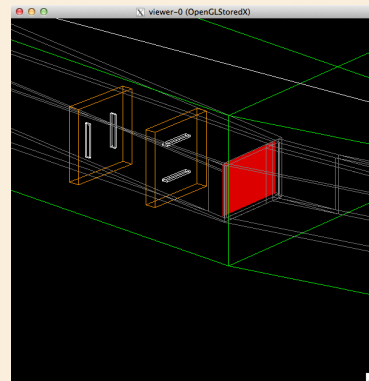
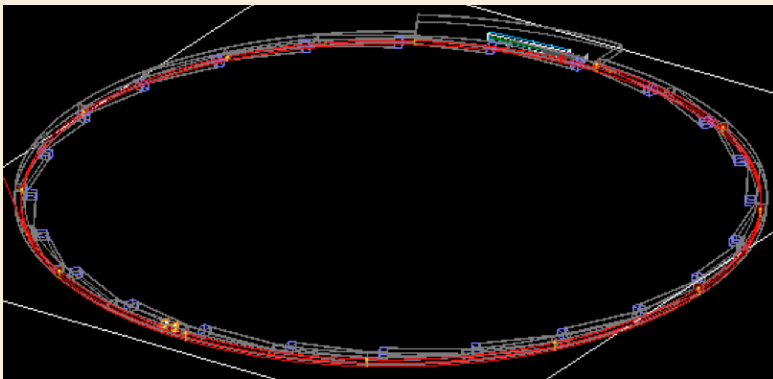
Muon g-2 Simulations

Adam Lyon / Fermilab SCD / Muon g-2

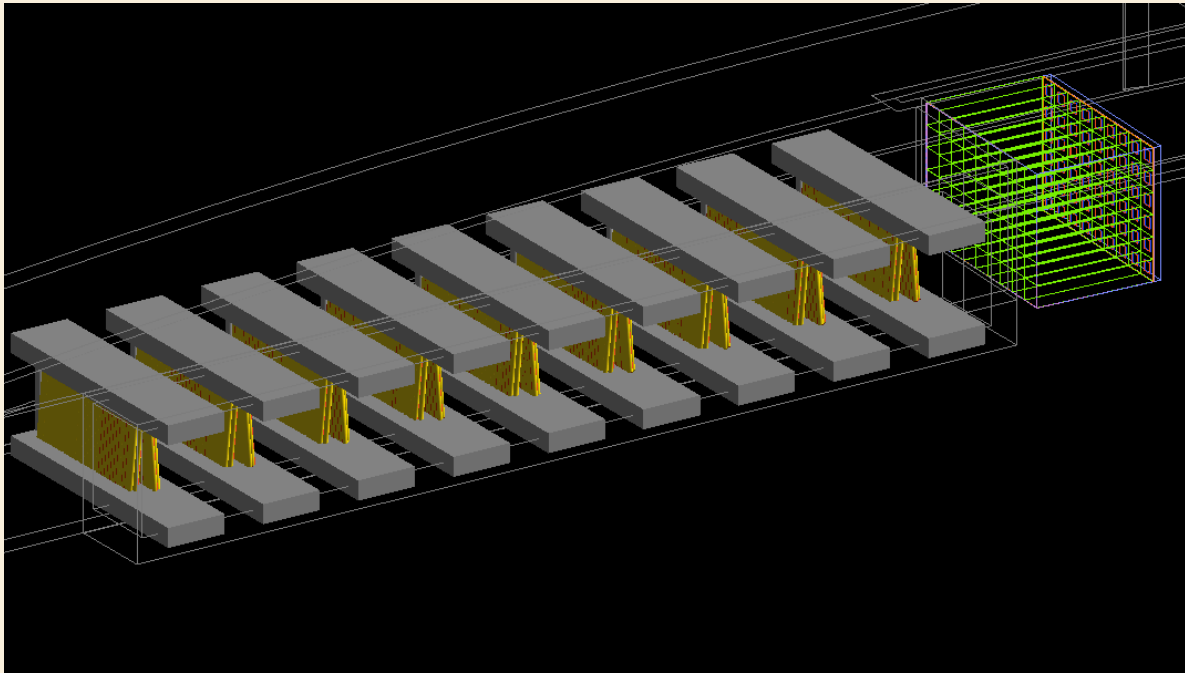
Simulations at Muon g-2

- o Ported a legacy monolithic system (g2migtrace) to Art with ArtG4
- o Full simulation including beam dynamics and detectors of the Muon g-2 storage ring
- o Test beam simulations too

Pictures

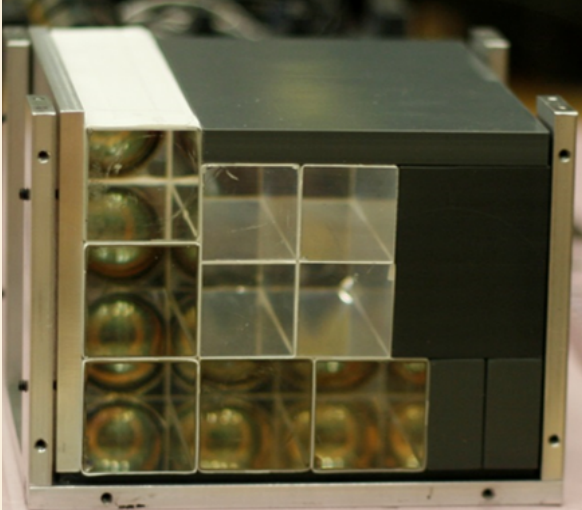


Pictures

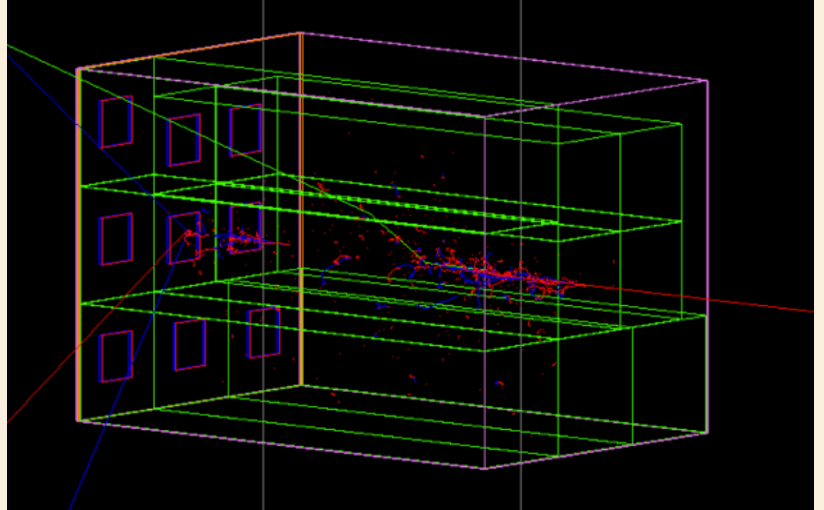


Testing placement of straw tubes (yellow/grey) in front of calorimeter (green crystals)

Calorimeter Test Beam @ SLAC



Prototype Calorimeter



ART Based Geant Simulation

Muon g-2 simulations

- o Transitioning from writing the simulation to using it
- o Geometry is “hard coded” - geometry parameters in Art FCL files (not GDML)
- o Krzysztof gave us important geometry advice
- o Hans is making good improvements to ArtG4
- o We should talk to your group more – what are best practices in Geant? What new features of recent Geant versions should we use?